

VII

10	20	30	40	50	60	
GACATTCTAATGACCCAATCTCCACTCTCCCTGCTGTCAGTCTTGAGATCAAGCCTCC						
D I L M T Q S P L S L P V S L G D Q A S						
70	80	CDR1	90	100	110	120
ATCTCTTGCGATCTAGTCACAACATTTGACATAATAATGGAATCACCTATTTAGAAATGG						
I S C R S S Q N I V H N N G I T Y L E W						
130	140	150	160	170	CDR2	180
TACCTGCAAGGCGAGGCCACTCTCCAAAGCTCTGATCTAGAAAGTTTCGACCGGATTT						
Y L Q R P G Q S P K L L I Y K V S D R F						
190	200	210	220	230	240	
TCTTGGGTCCAGACAGTTTCAGTGGCACTGGATCAGGGACAGATTTTCACACTCAAGATC						
S G V P D R F S G S G S G T D F T L K I						
250	260	270	280	290	CDR3	300
AGCAGAGTAGAGGCTGAGGATCTGGGAATTTATTACTGTTTCAAGTTTCACATATTCCT						
S R V E A E D L G I Y Y C F Q G S H I P						
310	320	330	340			
CCACAGTTGGAGGGGGACCAAGCTGGAATCAAAACGTGGG						
P T F G G G T K L E I K R A						

FIG. 1

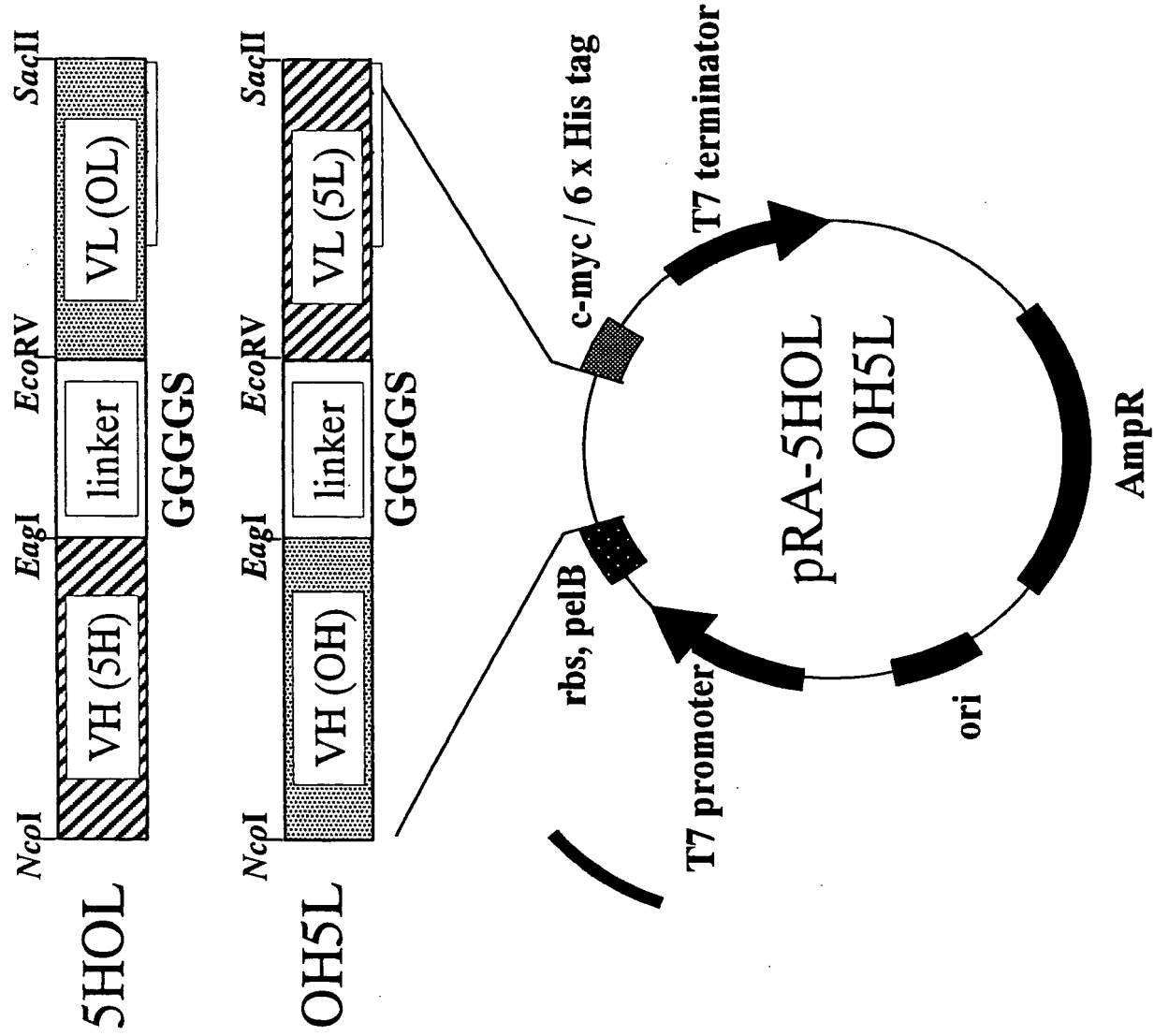


FIG. 2

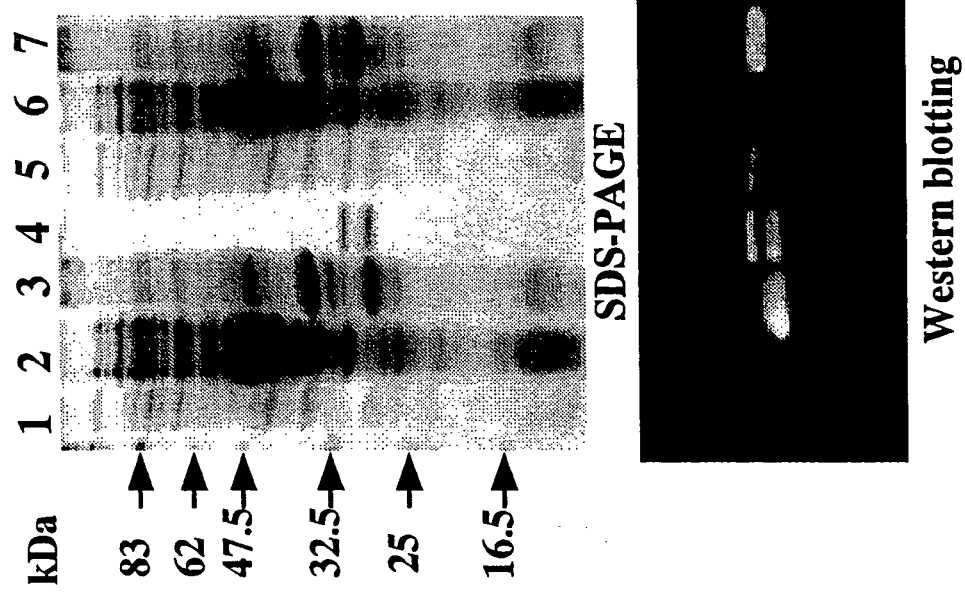


FIG. 3

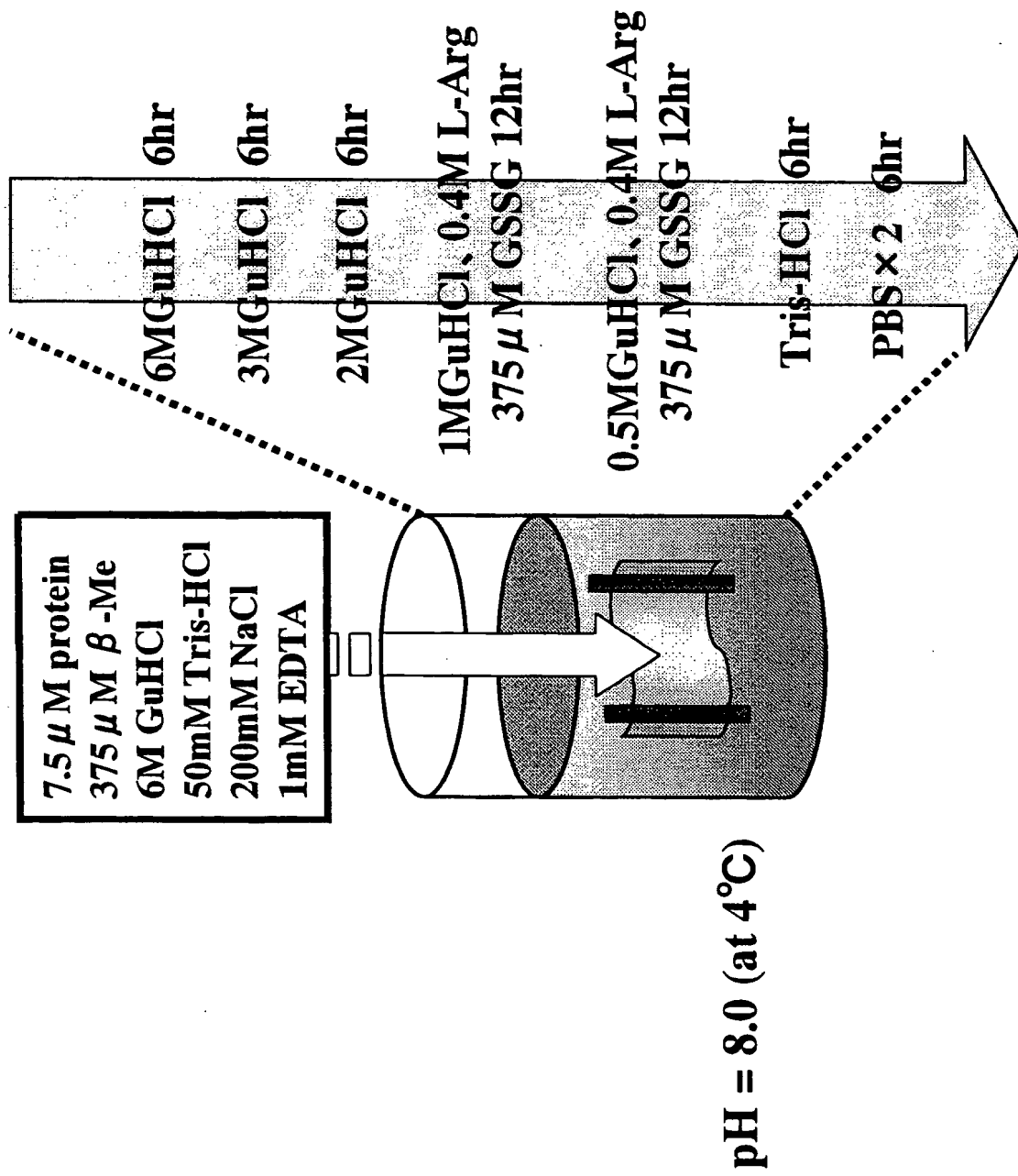


FIG. 4

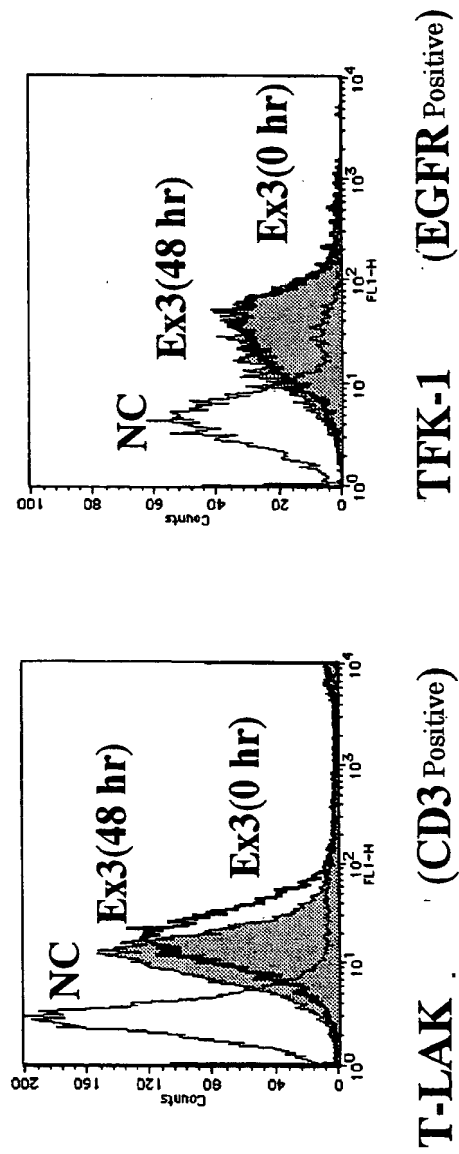
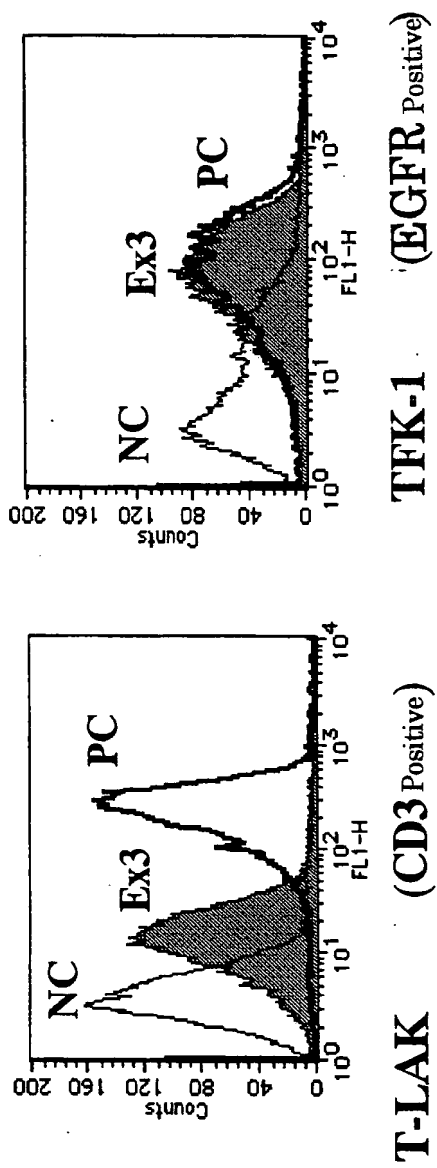


FIG. 5

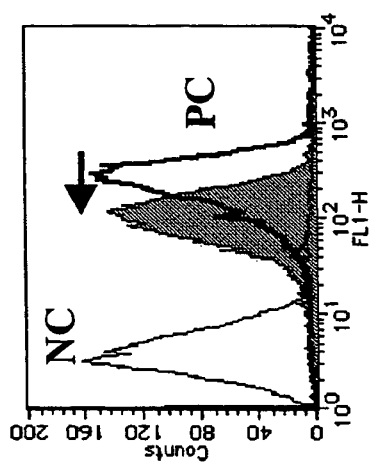
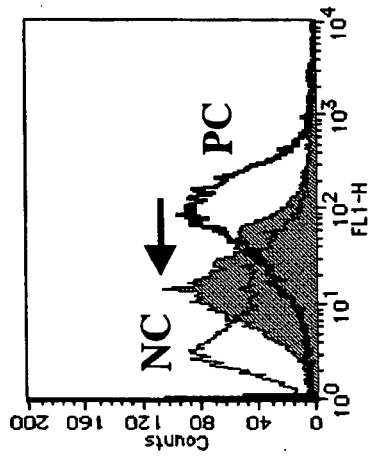
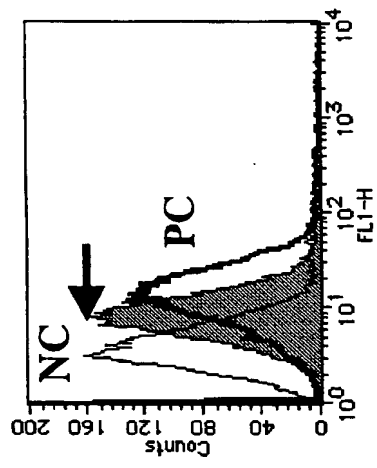


FIG. 6

T-LAK



TEK-1

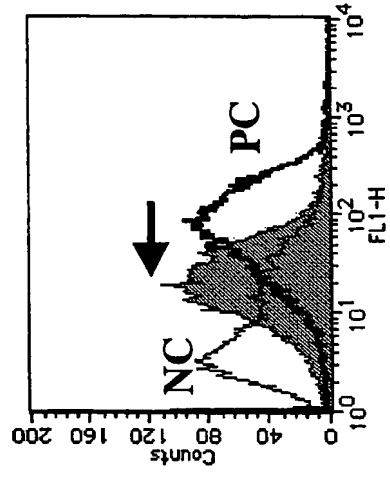
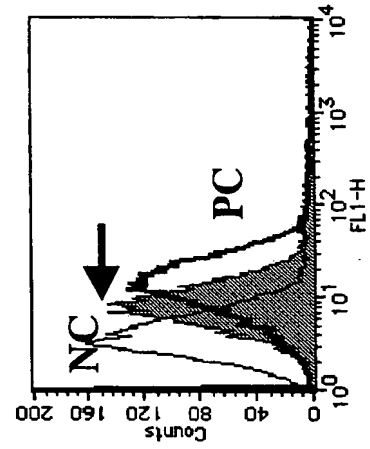
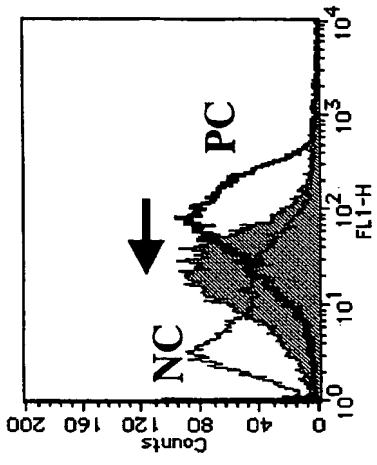


FIG. 7

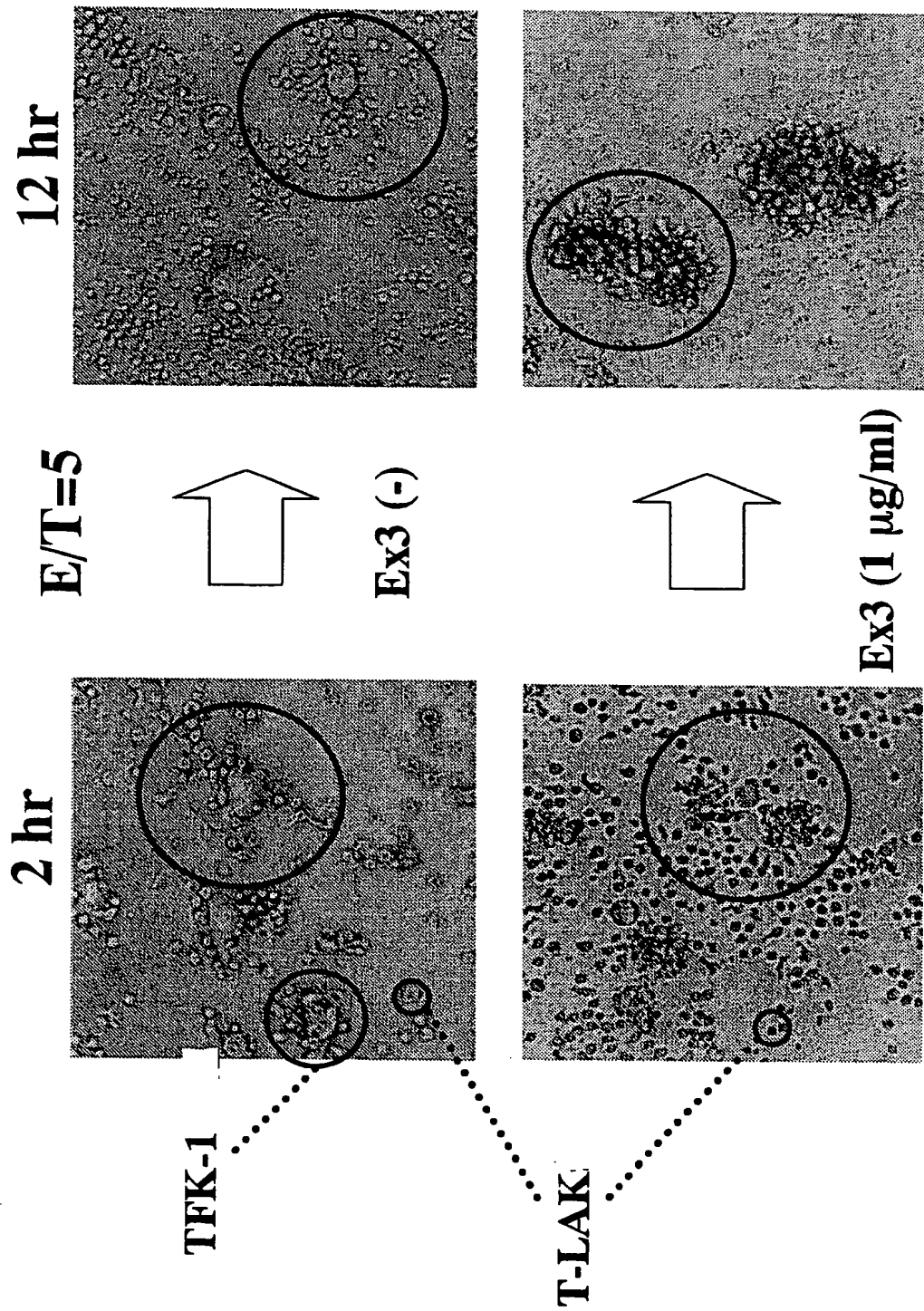
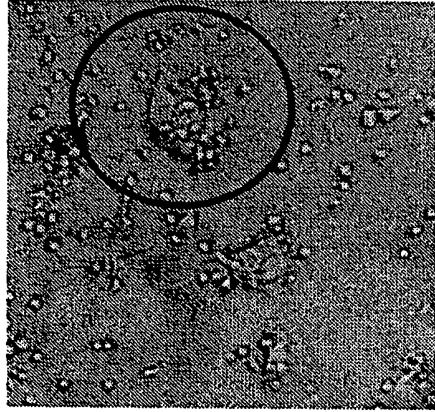


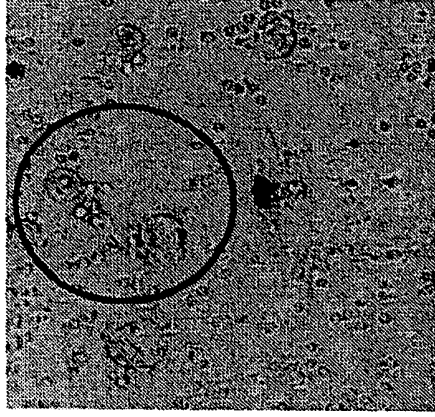
FIG. 8

(E/T=5, 18 hr, Ex3 (1 μ g/ml))

parental IgG
(1 μ g/ml)



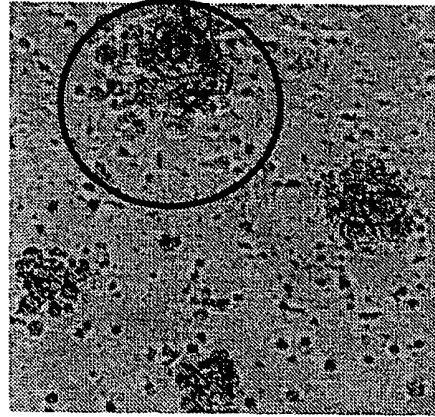
528 (anti-EGFR)



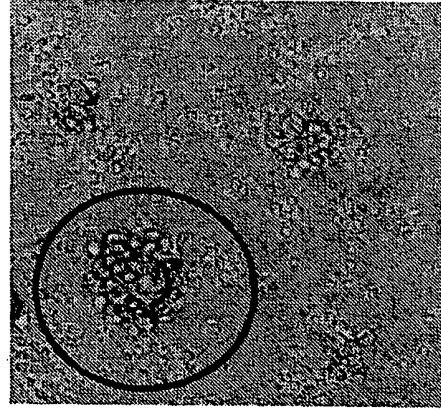
OKT3 (anti-CD3)

inhibited

irrelevant IgG
(1 μ g/ml)



MUSE 11 (anti-MUC1)



OKT8 (anti-CD8)

not inhibited

FIG. 9

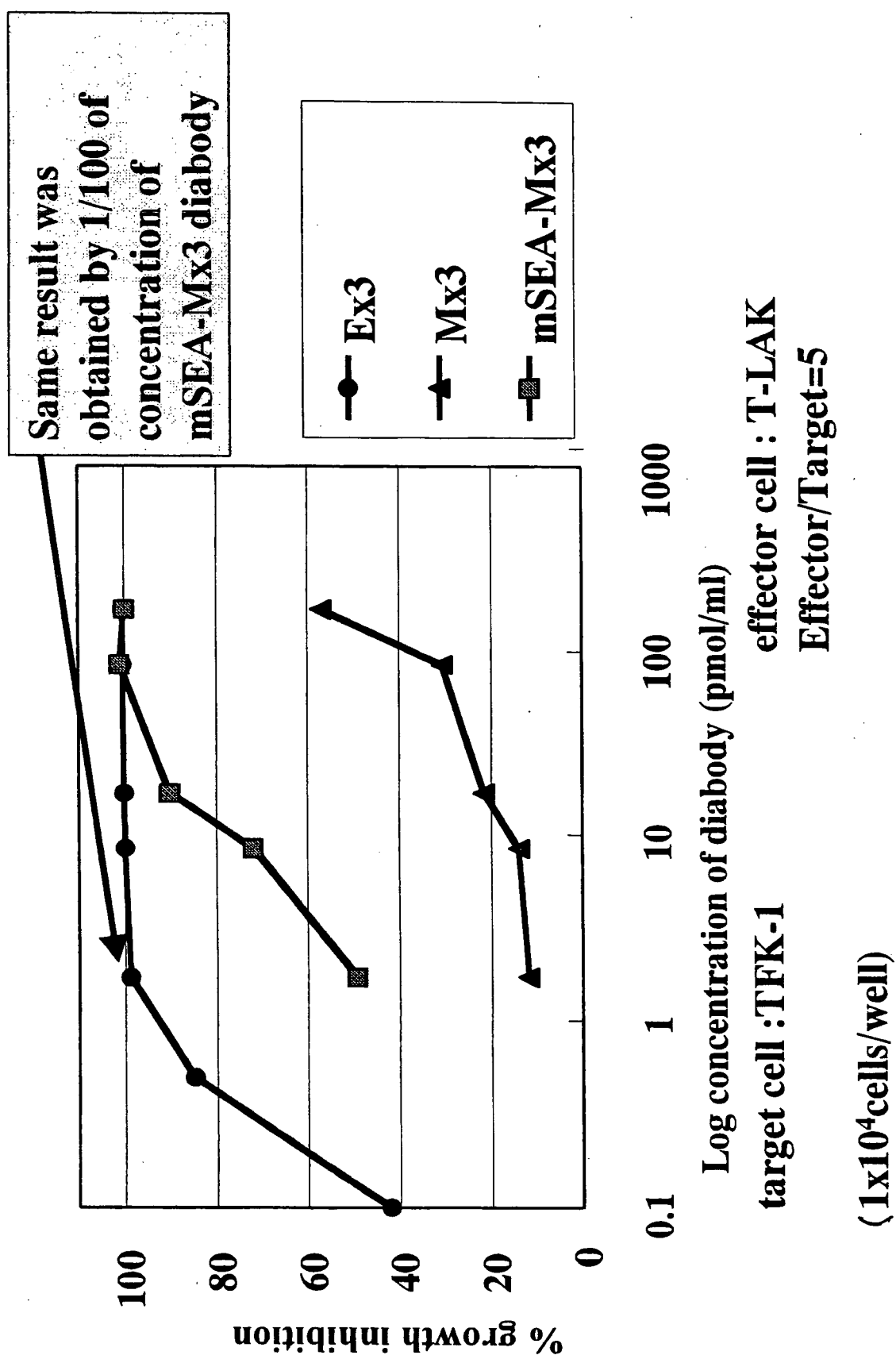


FIG. 10

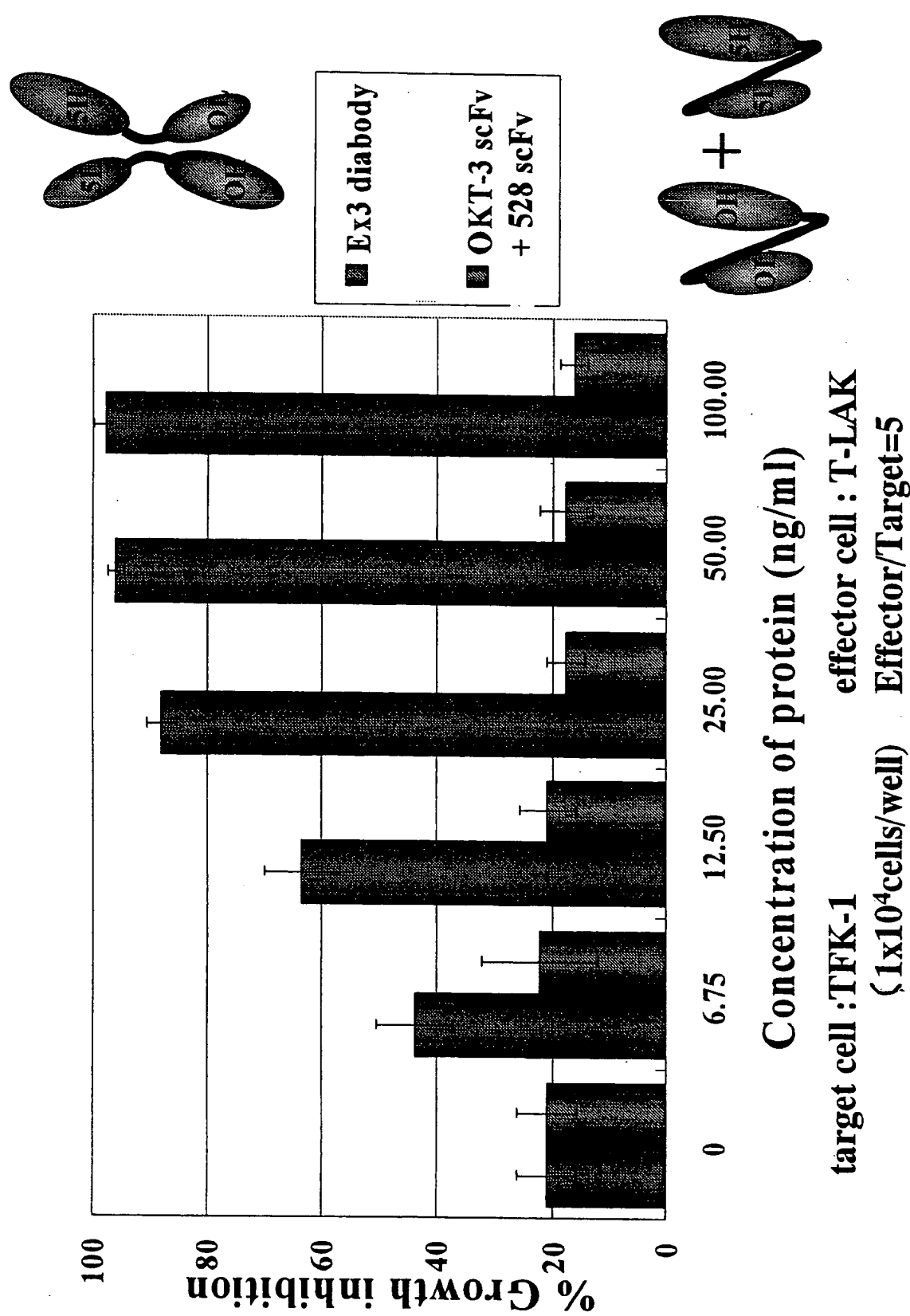


FIG. 11

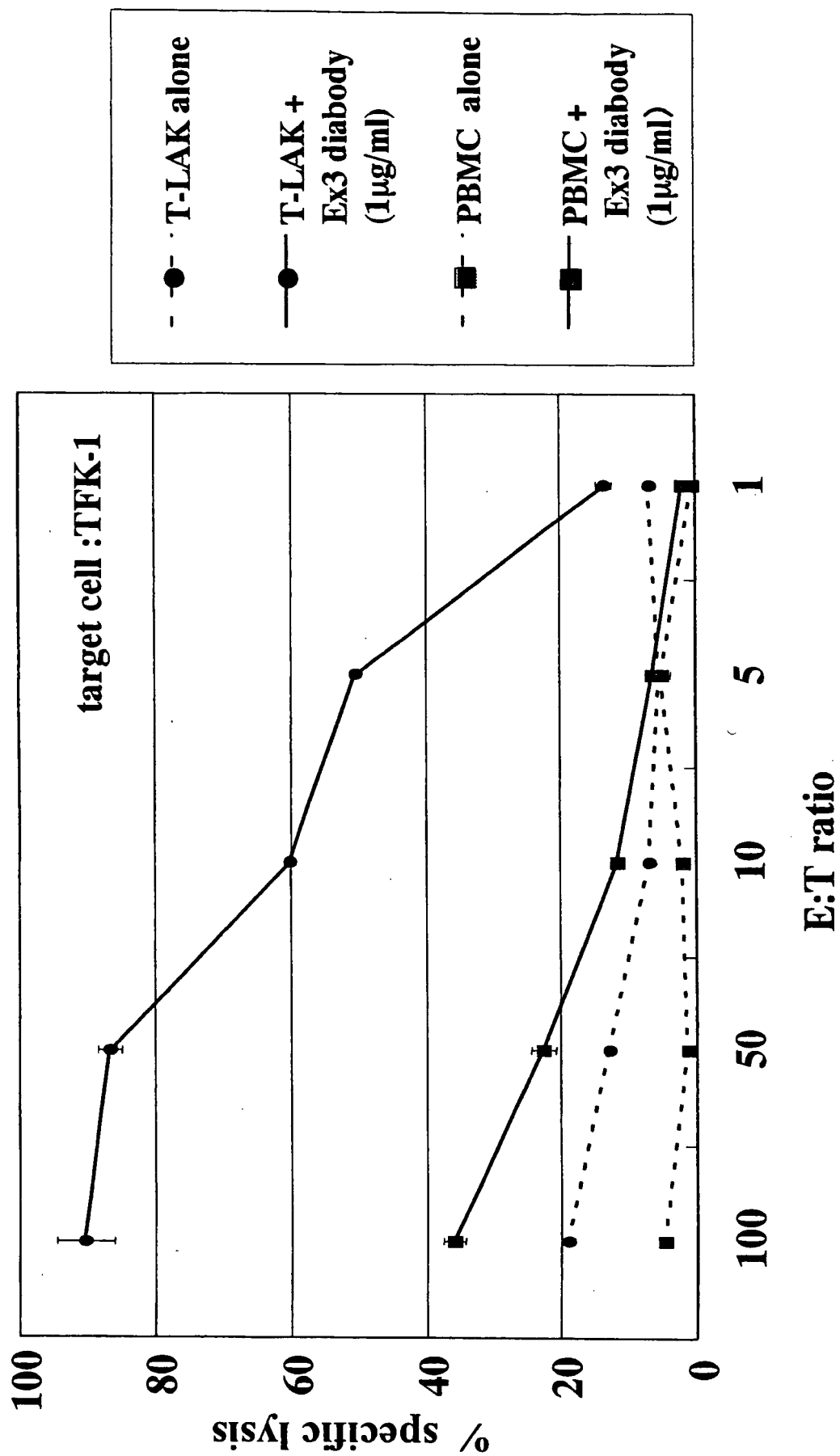


FIG.12

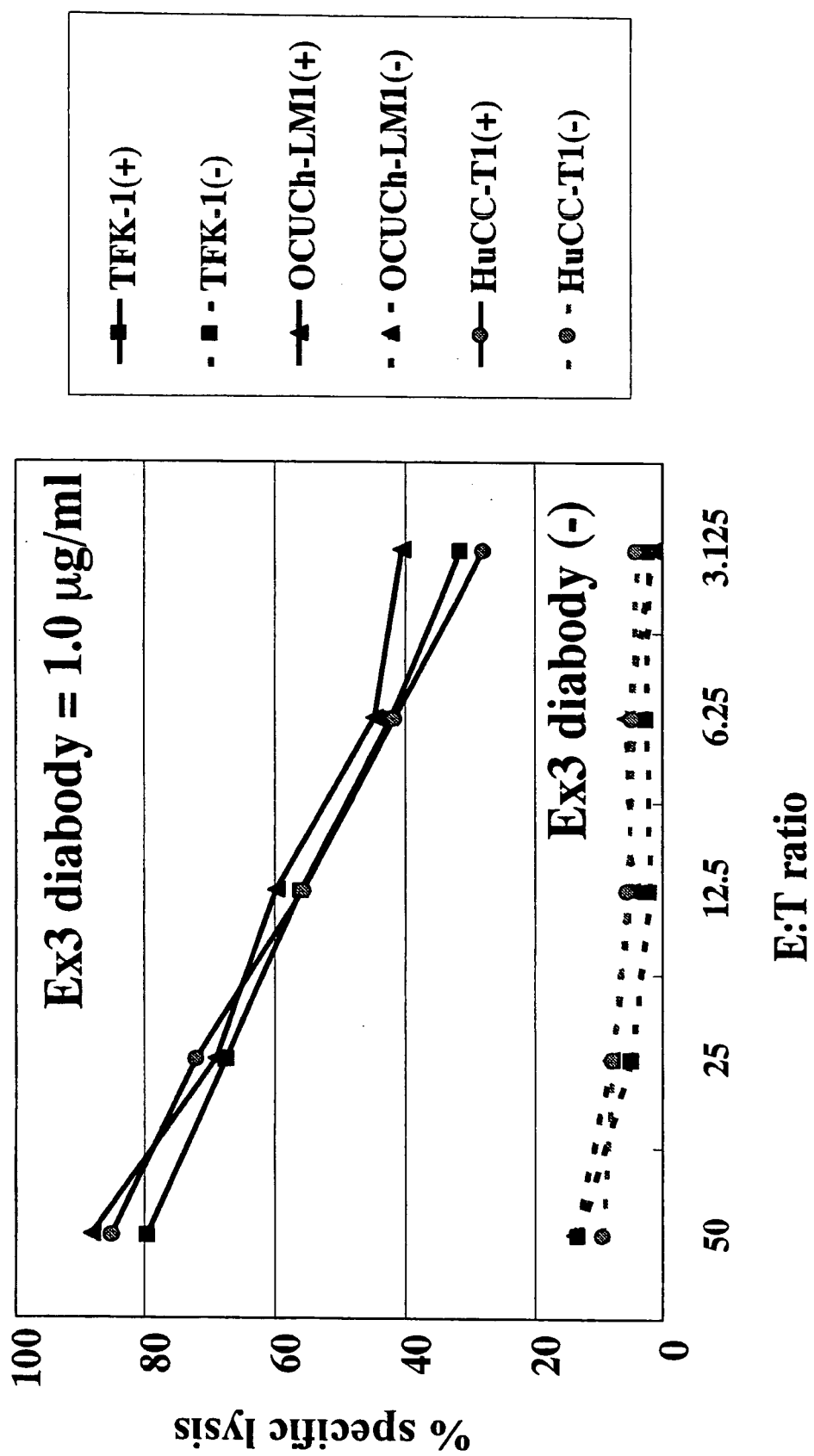


FIG. 13

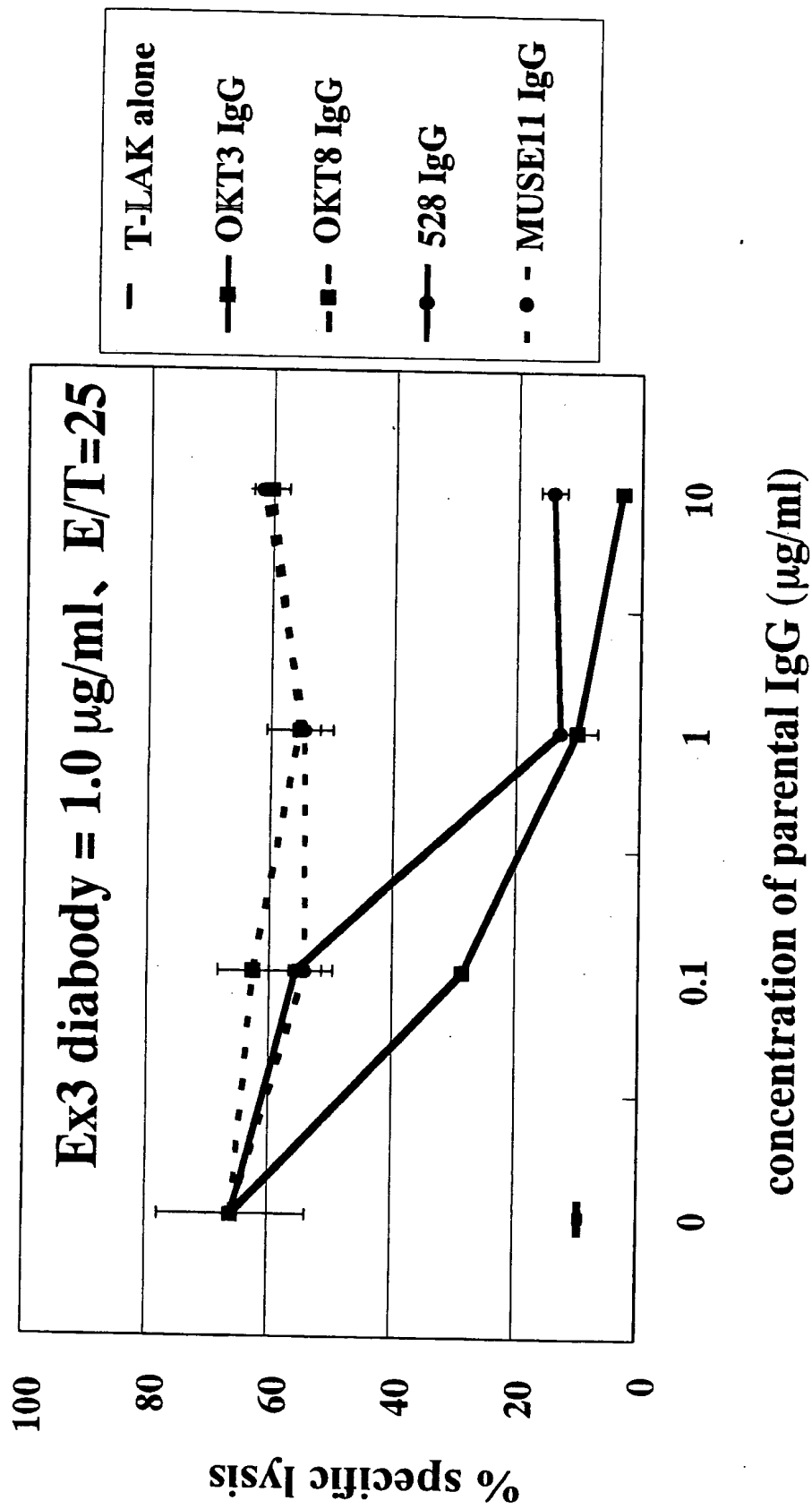
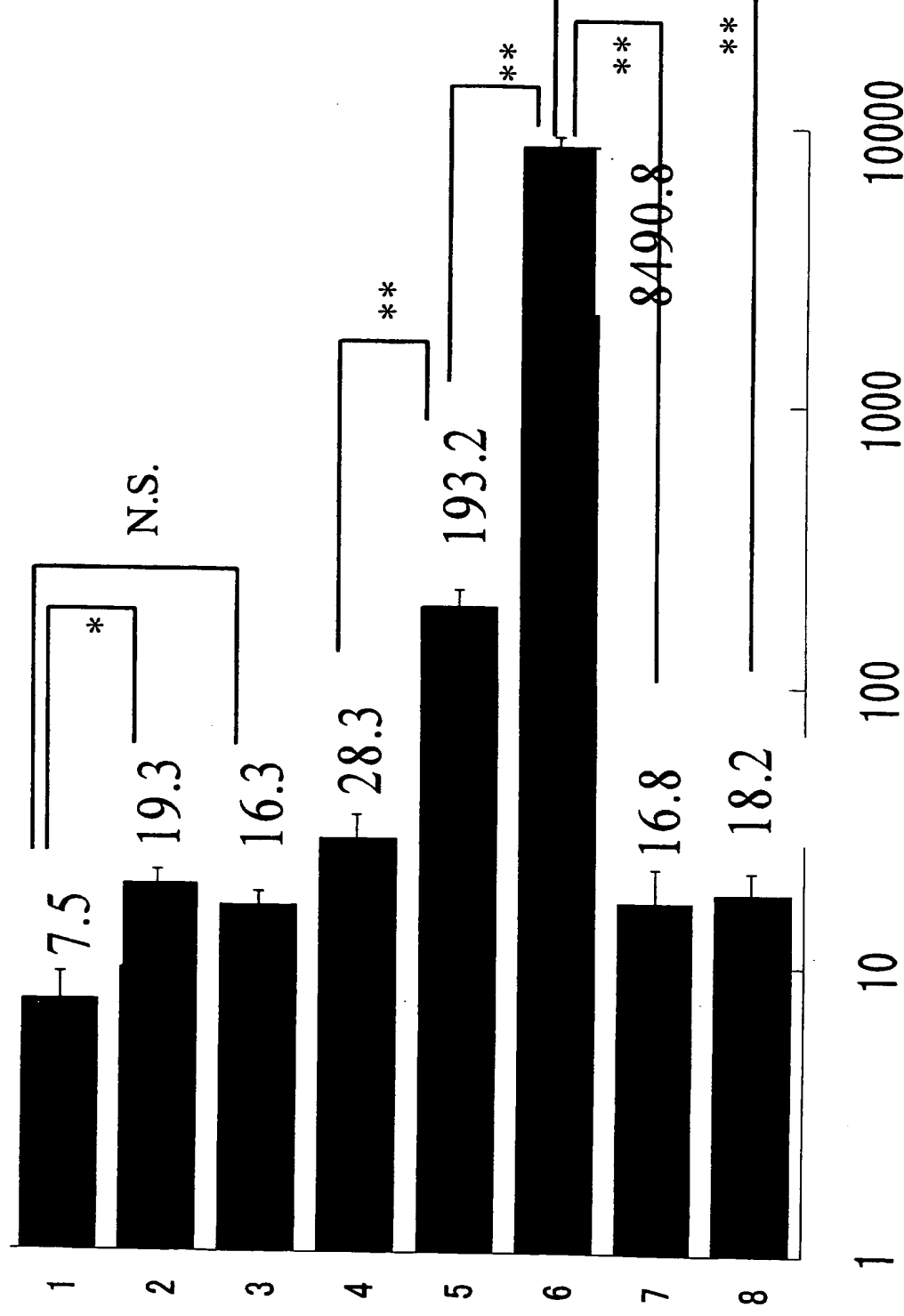


FIG. 14

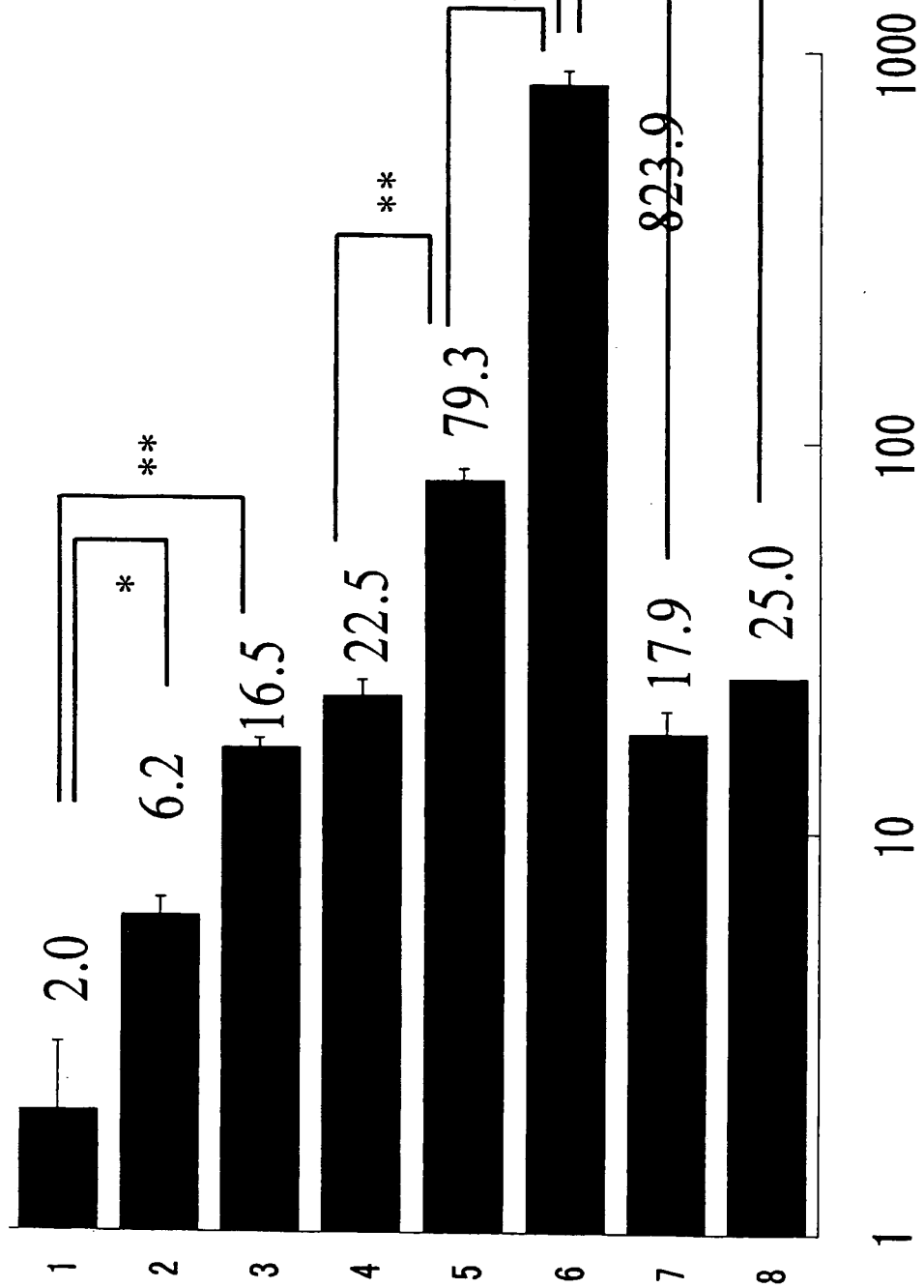


Log Concentration of the cytokine (pg/ml)

*, $p < 0.001$

**, $p < 0.0001$

FIG. 15



1. T-LAK alone

2. T-LAK + Ex3 1 µg/ml

3. T-LAK + TFK-1 (E/T=5)

4. 3 + Ex3 0.01 µg/ml

5. 3 + Ex3 0.1 µg/ml

6. Ex3 1 µg/ml

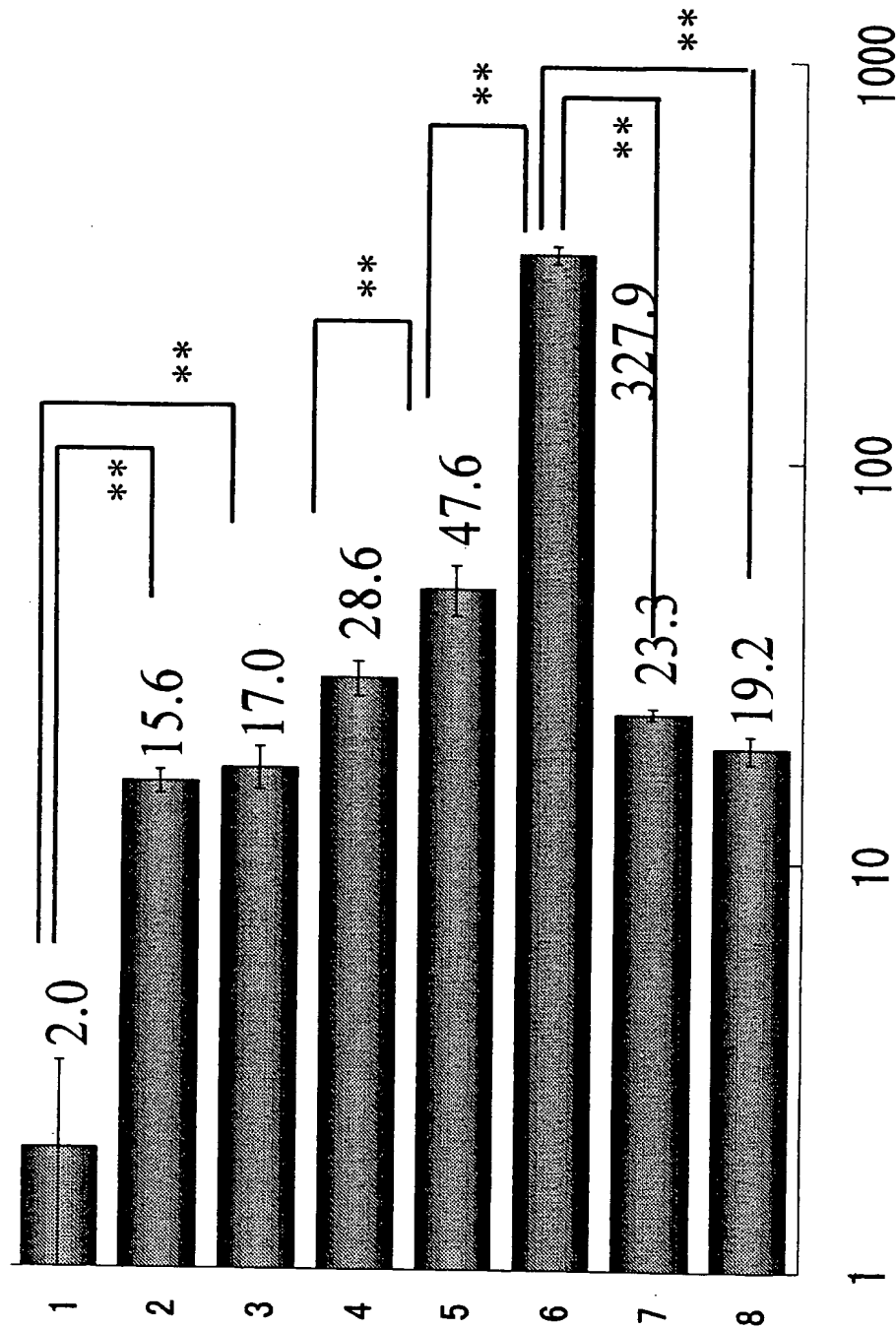
7. 528 IgG 1 µg/ml

8. OKT3 IgG 1 µg/ml

Log Concentration of the cytokine (pg/ml)

*, $p < 0.001$ **, $p < 0.0001$

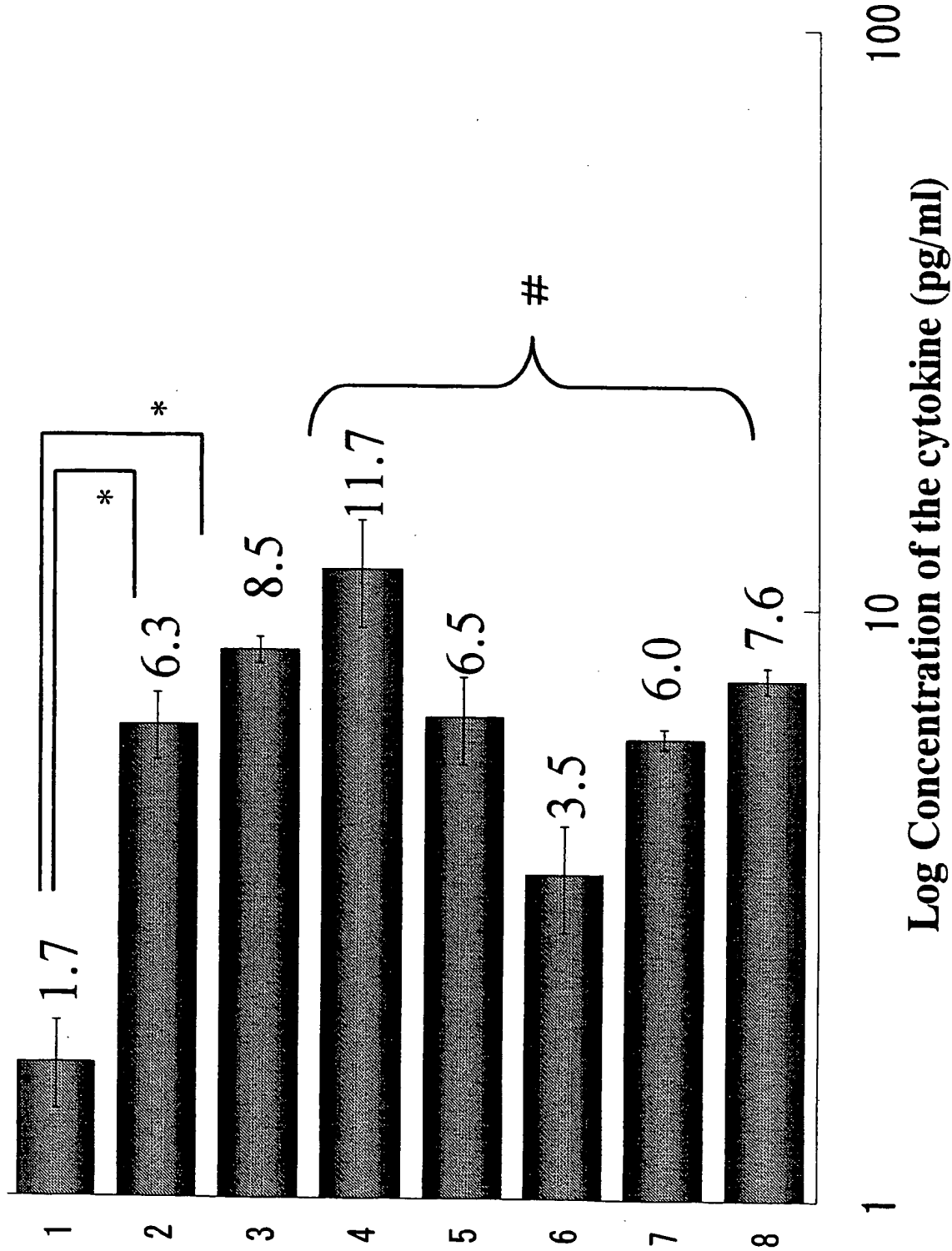
FIG. 16



Log Concentration of the cytokine (pg/ml)

*, $p < 0.001$ **, $p < 0.0001$

FIG: 17



*, $p < 0.001$ #, There was no significant difference between every 2 groups.

FIG. 18

1. T-LAK alone

2. T-LAK +

Ex3 1 $\mu\text{g/ml}$

3. T-LAK + TFK-1
(E/T=5)

4. 3 +

Ex3 0.01 $\mu\text{g/ml}$

5. 3 +

Ex3 0.1 $\mu\text{g/ml}$

6. 3 +

Ex3 1 $\mu\text{g/ml}$

7. 6 +

528 IgG 1 $\mu\text{g/ml}$

8. 6 +

OKT3 IgG 1 $\mu\text{g/ml}$

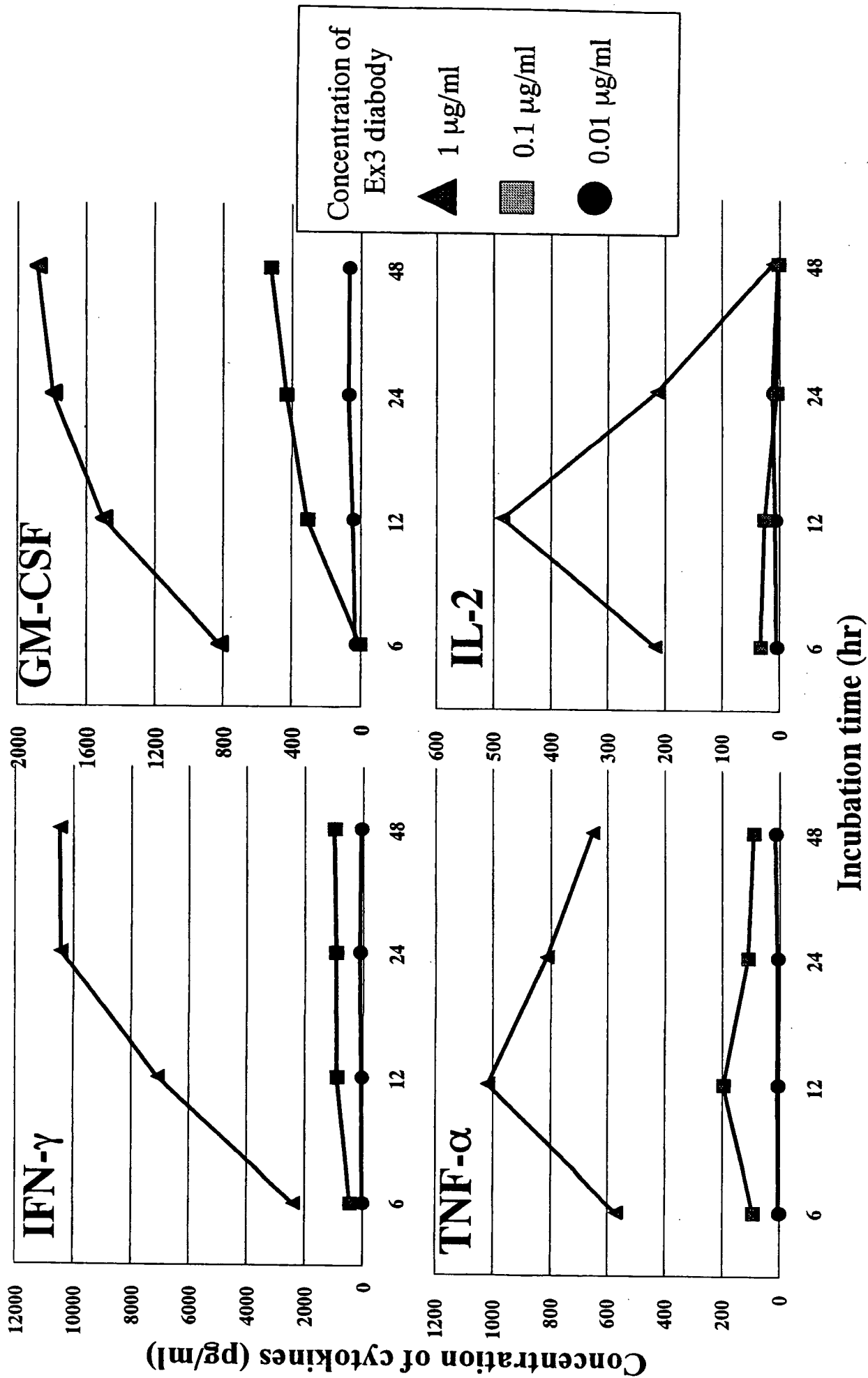


FIG. 19

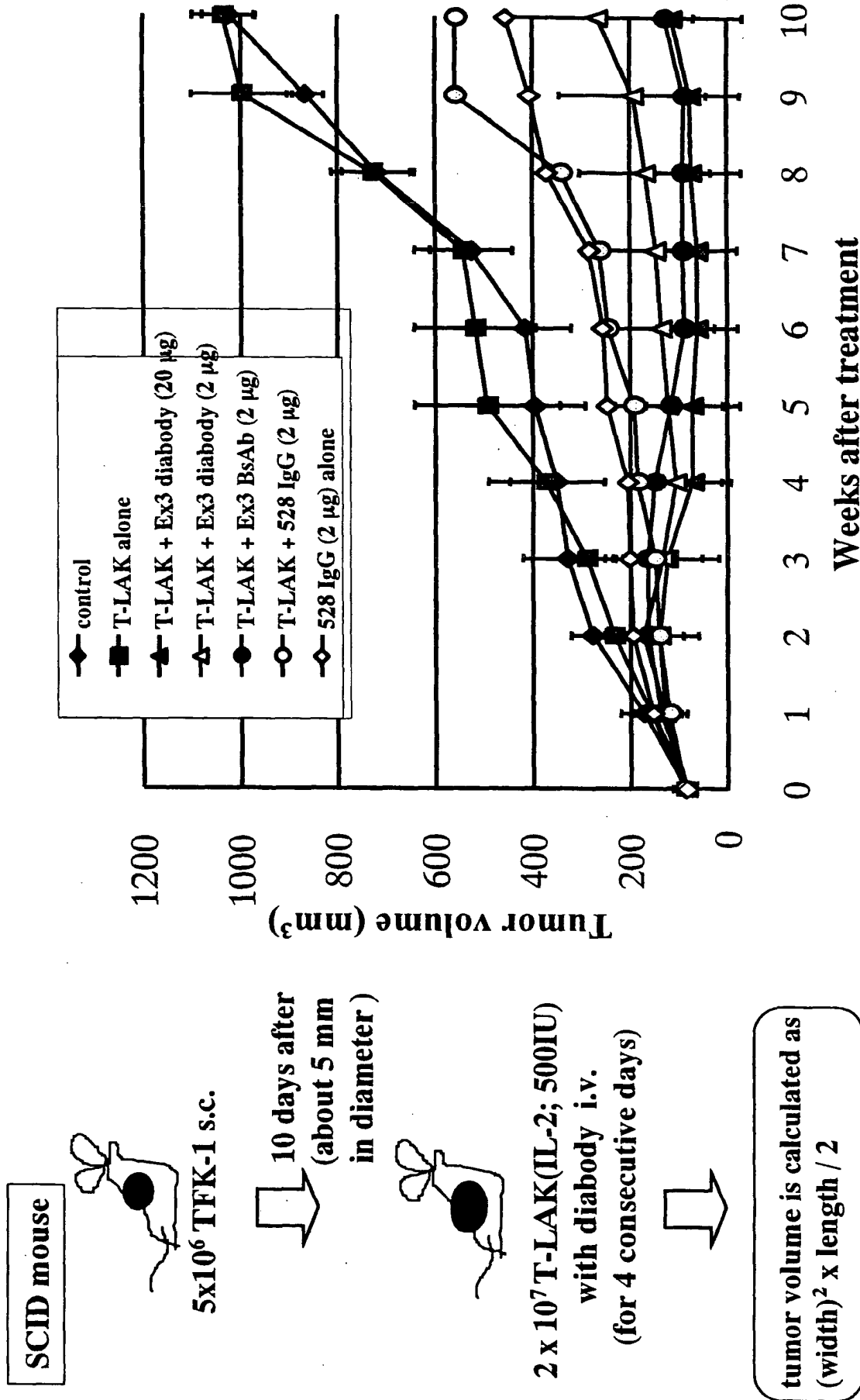


FIG. 20

VH

VL

10 20 30 40 50 60
 CAGGTGCAACTGGTGCACAGCGCGGTGGCGTTGTGCAGCGGGCGCGAGCTGGCGCTG
 Q V Q L V Q S G G G V V Q P G R S L R L
 70 80 90 100 CDR1 110 120
 TCTTGCAAGCGAGCGGCTATACCTTTACGGGCTATACCATGCCATGGGTGGCGCCAGGCG
 S C K A S G Y T F T R Y T M H W V R Q A
 130 140 150 160 170 CDR2 180
 CCGGGCAAGGCTCTGGAATGGATTGGCTATATTACCGGCTCTCGCGGCTATACCAACTAT
 P G K G L E W I G Y I N P S R G Y T N Y
 190 200 210 220 230 240
 AATCAGAAAGTGAAGAATCGCTTTACCATTAGCGCGGATAACTCTAAACACACCGCGTTT
 N Q K V K D R F T I S R D N S K N T A F
 250 260 270 280 290 CDR3 300
 CTGCAGATGGATAGCCTGGCGCCGGAAGATACCGCGGTGTATTTTTCGCGCGGTACTAT
 L Q M D S L R P E D T G V Y F C A R Y Y
 310 320 330 340 350
 GATGACCATTAGCCTGGATTATGGGGCCAGGGCACCCCGGTGACCGTTAGCTGG
 D D H Y S L D Y W G Q G T P V T V S S

10 20 30 40 50 60
 GATATCCAGATGACCCAGAGCCCGAGCTCTCTGAGCGGAGGCTGGCGGATCGCGTGACC
 D I Q M T Q S P S S L S A S V G D R V T
 70 80 CDR1 90 100 110 120
 ATTACGTGCACCGGCTCTAGCTCTGTGAGCTATATGAACCTGGTACCAGCAAGCCCGAGGC
 I T C S A S S S V S Y M N W Y Q Q T P G
 130 140 150 160 CDR2 170 180
 AAAGCGCGAAACGCTGGATTATGATACCAGCAAACTGGCGAGCGGCTGCCGAGGCCGC
 K A P K R W I Y D T S K L A S G V P S R
 190 200 210 220 230 240
 TTAGCGGCTCTGGTAGCGGACCGGATTATACGTTTACCATTAGCTCTCTGCAGCCGGAA
 F S G S G S G T D Y T F T I S S L Q P E
 250 260 270 280 CDR3 290 300
 GATATTGCGGACCTATTACTGCCAGCAATGGAGCTCTAACCGGTTTACCTTTGGCCAGGGT
 D I A T Y Y C Q Q W S S N P F T F G Q G
 310 320
 ACCAAACTGCAGATTACCGCGCGG
 T K L Q I T R A

FIG. 21

VH

VL

10	20	30	40	50	60
CAGGTGCAACTGGTTTCAGAGCGCGCGGAAGTGAAAAAGCCGGCGGCTCGGTTAAAGTG					
Q V Q L V Q S G A E V K K P G A S V K V					
70	80	90	100	110	120
AGCTGCAAAAGCCTCAGGCTATACCTTTACG					
S C K A S G Y T F T S Y W M H W V R Q A					
130	140	150	160	170	180
CCGGGTCAGGGCCTGGAATCGATGGGTACATTTATCCGGGCAGCGGTGGCACCAACTAT					
P G Q G L E W M G N I Y P G S G G T N Y					
190	200	210	220	230	240
GCGGAAAAATTTAAGAACCGCGTGACCATGACCGGTGATACCAGCATTTTCGACGGCCTAT					
A E K F K N R V T M T R D T S I S T A Y					
250	260	270	280	290	300
ATGGAACTGAGCGCGCTCGGTAGCGATGACACCGCGCTGTATTACTCGCGCGCGGAGTGGC					
M E L S R L R S D D T A V Y Y C A R S G					
310	320	330	340	350	
GGTCGGTATTTTTCGATTAC					
G P Y F F D Y W G Q G T L V T V S S					

10	20	30	40	50	60
GATATTGTGATGACCCAGAGCCCGCTGAGCCTGCGCGTGACCCAGGGAACCGCGGCTCG					
D I V M T Q S P L S L P V T P G E P A S					
70	80	90	100	110	120
ATTAGCTCGG					
I S C R S S Q N I V H N N G I T Y L E W					
130	140	150	160	170	180
TATCTGCAGAAACCGGGCCCAAGCCCGCAGCTGTTAATTTAT					
Y L Q K P G Q S P Q L L I Y K V S D R F					
190	200	210	220	230	240
AGCGCGTCCCGGATCGCTTTTCGGGCAGCGGTAGTGGCACCAGATTTTACGCTGAAAATT					
S G V P D R F S G S G S G T D F T L K I					
250	260	270	280	290	300
AGCCGCGTGGAAAGCGGAGGATGTTGGCGTGTTACTGCTTCAGGGCAGCCATATCCCG					
S R V E A E D V G V Y Y C F Q G S H I P					
310	320	330	340		
CCAACCTTTCGCAAGGCACCAAGTGGAAATTAACGCGGG					
P T F G Q G T K V E I K R A					

FIG. 22

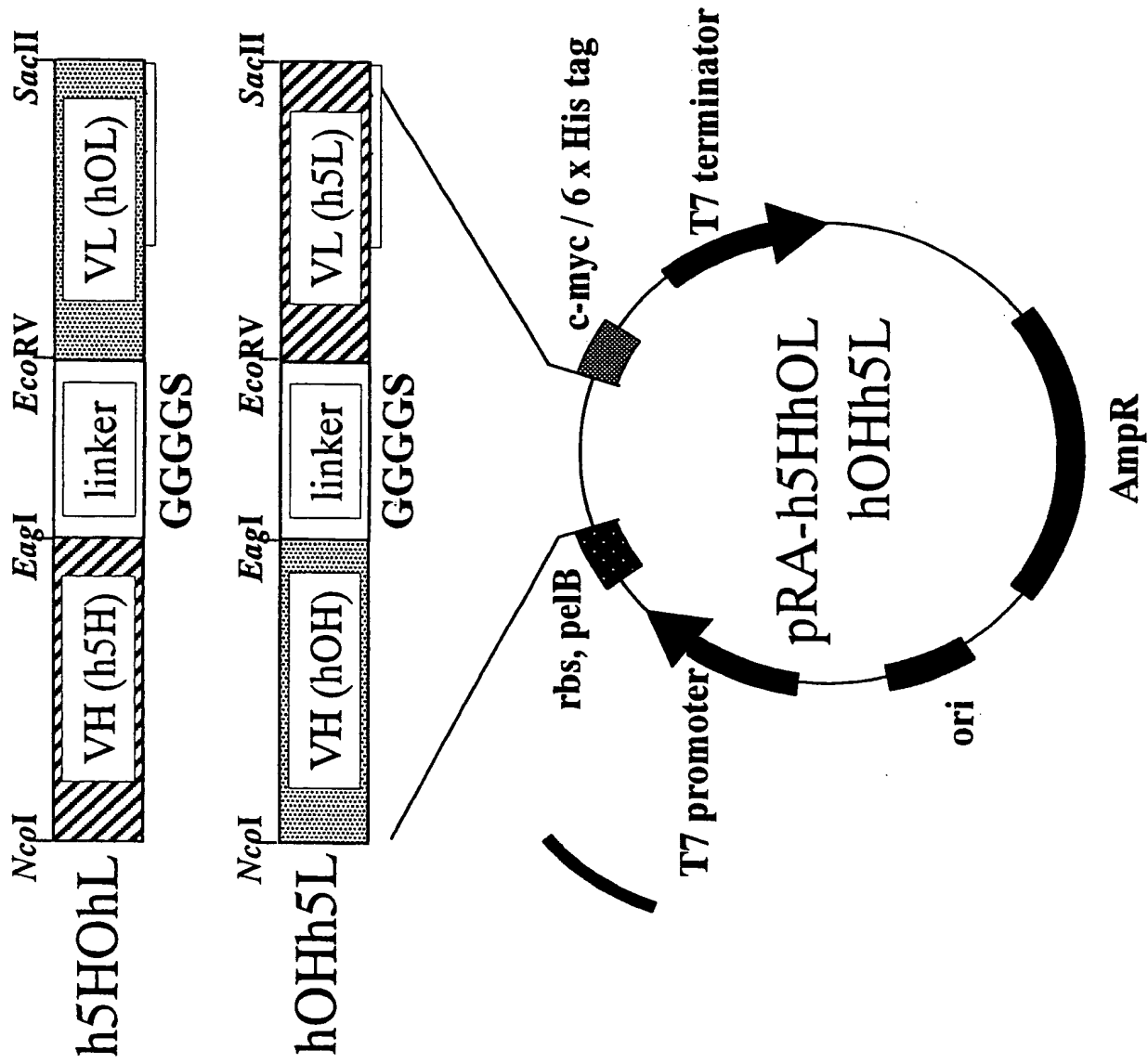


FIG. 23

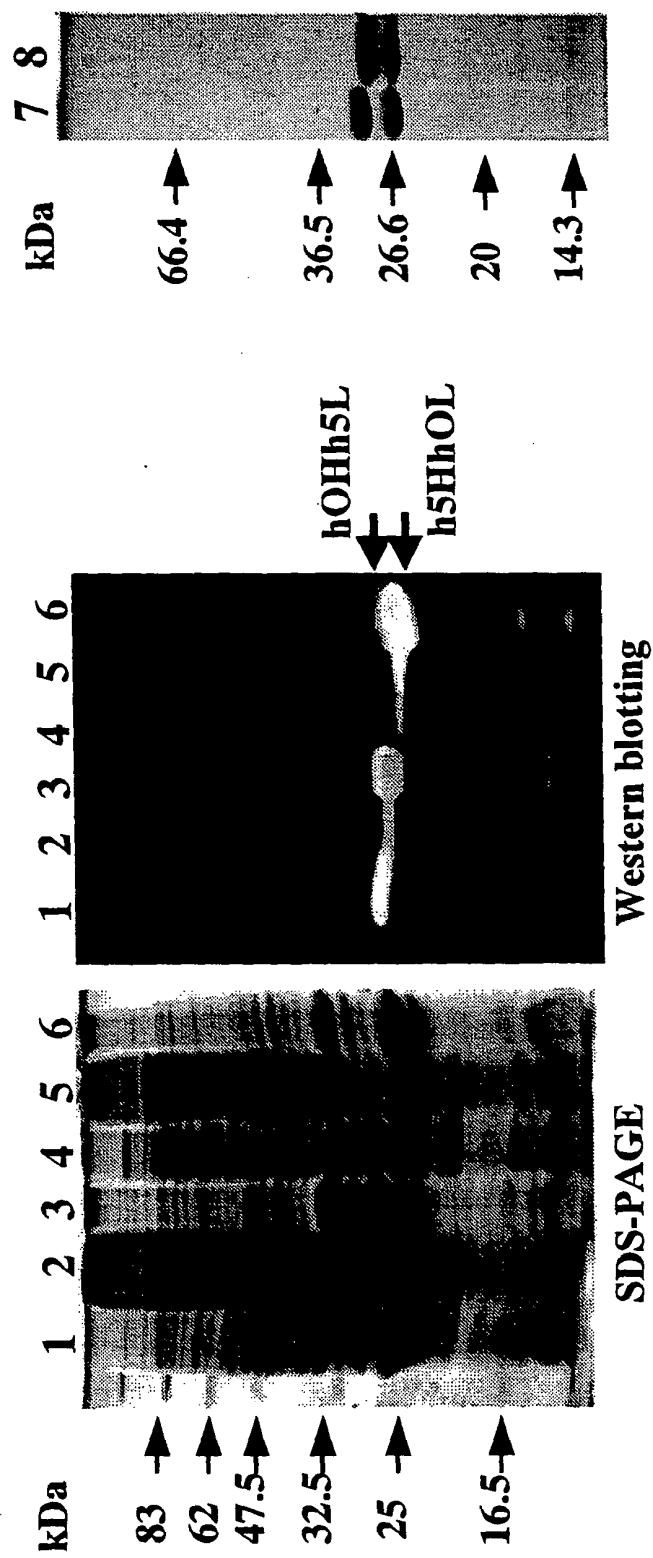


FIG. 24

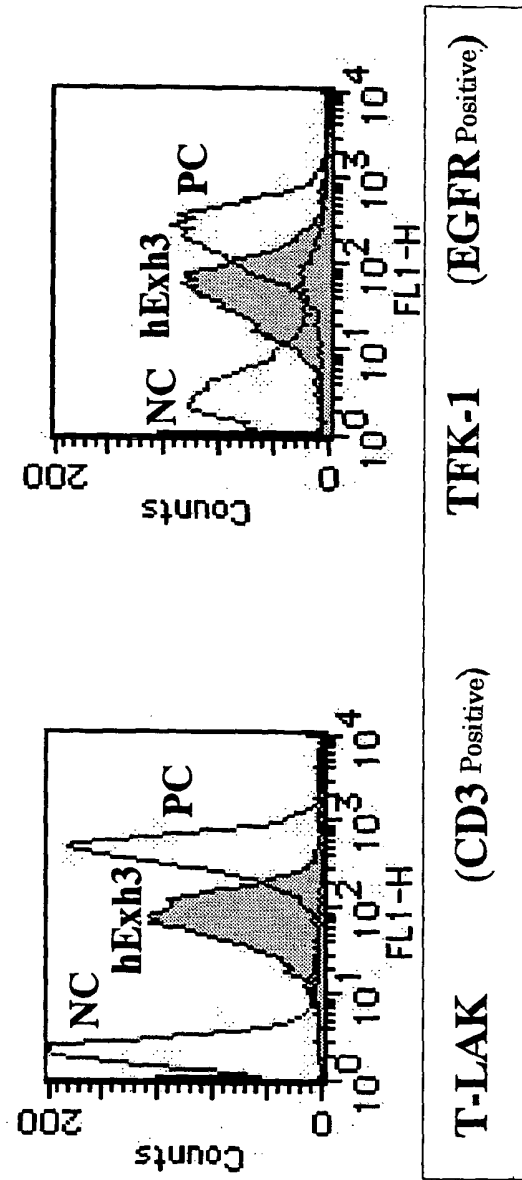


FIG. 25

	FR1	CDR1	FR2	CDR2
5H	QVQLQQSGSEMARPGASVKLPCKASGDTFT	SYWMH	WVKQRHGHGPEWIG	NIYPGSGGTNYAEKFKN
h5H	QVQLVQSGAEVKKPGASVKVSCKASGYTFT	SYWMH	WVRQAPGGGLEWMG	NIYPGSGGTNYAEKFKN
h5H-m01	-----	-----	-----I-	-----
h5H-m02	-----	-----	-----I-	-----
h5H-m03	-----	-----	-----	-----
h5H-m04	-----	-----	-----I-	-----
h5H-m05	-----D-----	-----	-----I-	-----
h5H-m06	-----	-----	-----I-	-----
h5H-m07	-----	-----	-----	-----
h5H-m08	-----	-----	-----I-	-----
h5H-m09	-----	-----	-----I-	-----
h5H-m10	-----	-----	-----I-	-----

	FR3	CDR3	FR4
5H	KVTLTVDRSSRTVYMHLSRLTSEDSAVYYCTR	SGGPYFFDY	WGQGTLLTVSS
h5H	RVTWTRDTSISTAYMELSRLRSDDTAVYYCAR	SGGPYFFDY	WGQGTLLTVSS
h5H-m01	-----	-----	-----
h5H-m02	-----T-----	-----	-----
h5H-m03	K---V-----	-----	-----
h5H-m04	K---V-----	-----	-----
h5H-m05	K---V-----	-----	-----
h5H-m06	K---V-----T-----	-----	-----
h5H-m07	K--L-V-R-----	-----	-----
h5H-m08	K--L-V-R-----	-----	-----
h5H-m09	K--L-V-R-----T-----	-----	-----
h5H-m10	K---V---SR-V-----T-----	-----	-----

FIG. 26

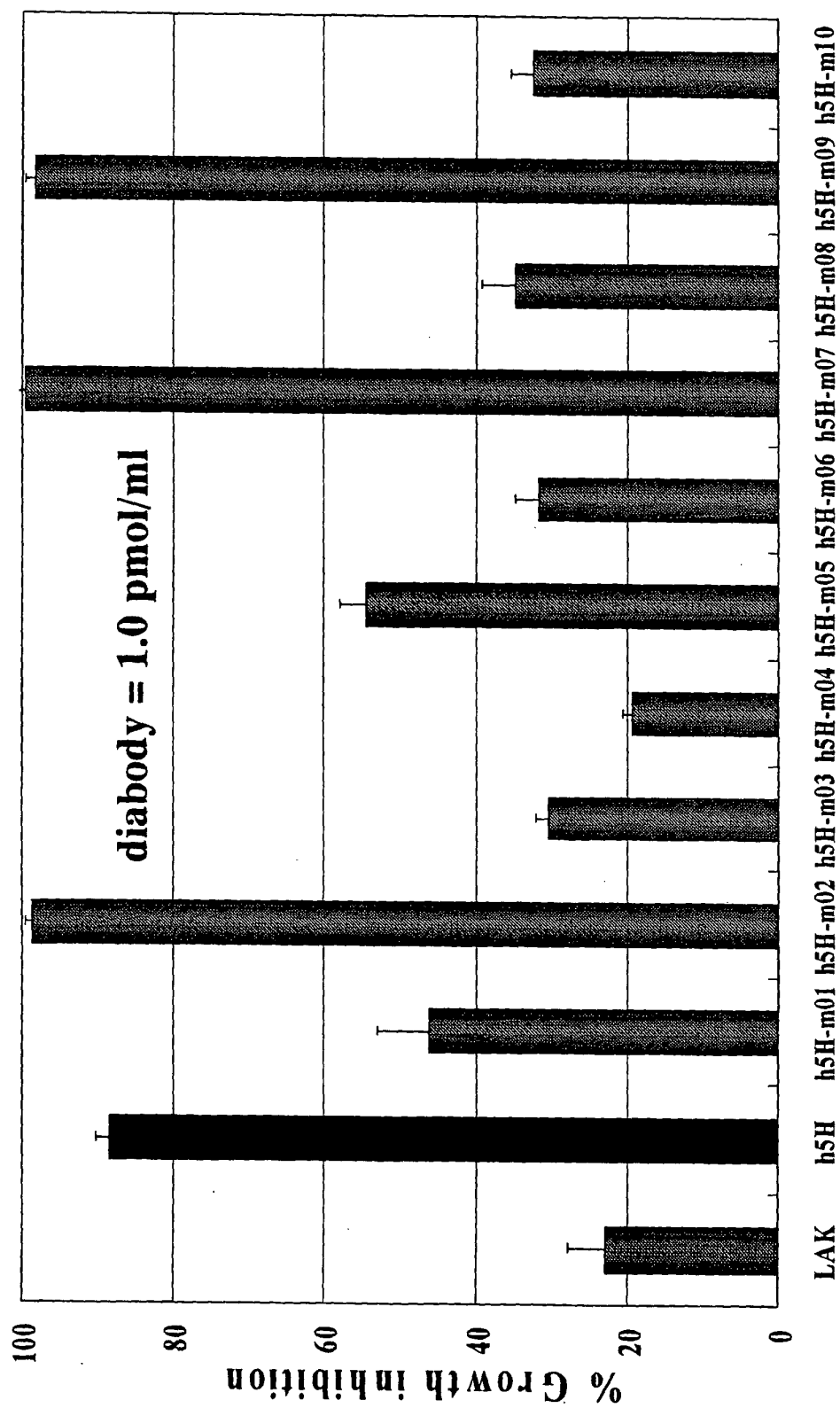


FIG. 27

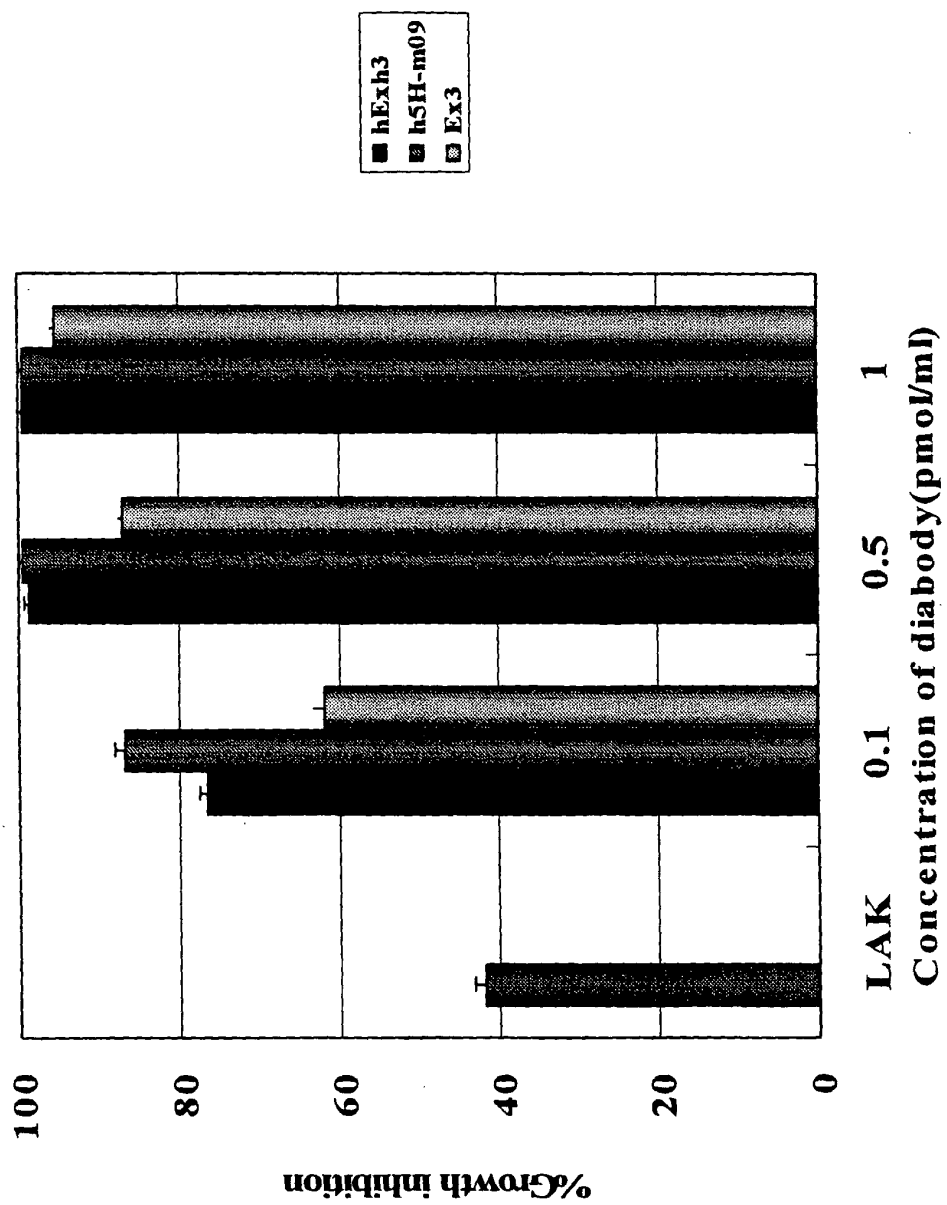


FIG. 28